

CLAIMS:

1. A microelectromechanical component formed of silicon, the component comprising:
 - a feature on the component which is subjected to a mechanical stress; and
 - means for increasing robustness of the feature.
2. The component of claim 1 wherein means for increasing robustness of the feature comprises coating the feature with a ductile material.
3. The component of claim 2 wherein the ductile material comprises a metal.
4. The component of claim 1 wherein means for increasing the robustness of the feature comprises coating the component with a ductile material.
5. The component of claim 4 wherein the ductile material comprises a metal.
6. A microcomponent formed of silicon, the microcomponent comprising:
 - a feature on the microcomponent which is subjected to a mechanical stress; and
 - a ductile material coating the feature to increase robustness of the microcomponent.
7. The microcomponent of claim 6 wherein the ductile material comprises a metal.

8. The microcomponent of claim 7 and further comprising a seed layer to facilitate the ability of the metal to coat the feature.

9. The microcomponent of claim 7 wherein the metal has a thickness of about 10 microns.

10. The microcomponent of claim 6 wherein the ductile material coating the feature prevents the silicon from chipping or breaking near the feature which is subjected to a mechanical stress.

11. The microcomponent of claim 6 and further comprising a ductile material coating substantially the entire surface of the microcomponent.

12. A method of increasing the robustness of an area on a microelectromechanical components, the method comprising:

forming the microelectromechanical component from silicon; and
coating a selected area on the component which is subjected to a
mechanical stress with a ductile material.

13. The method of claim 12 wherein forming the component from silicon comprises forming a plurality of components from a silicon wafer.

14. The method of claim 13 wherein coating the component with a ductile material comprises coating a preselected area of the component with a metal.

15. The method of claim 14 wherein coating a preselected area of the component with a metal comprises:

applying photoresist to the component to define an area to which
the metal will be applied;
depositing a seed layer on the component;
removing the photoresist so that the seed layer remains only in the
area to which the metal will be applied; and
applying a metal coating to the seed layer.

16. The method of claim 15 wherein applying the metal coating to the seed layer comprises using a chemical vapor deposition process.

17. The method of claim 15 wherein applying the metal coating to the seed layer comprises using an electroplating process.

18. The method of claim 15 wherein applying the metal coating to the seed layer comprises using a sputtering process.

19. The method of claim 15 wherein applying the metal coating comprises applying the metal coating to a thickness of up to about 10 microns.

20. The method of claim 15 wherein applying the metal coating comprises applying the metal coating to a thickness of up to about 20 microns.